

# MT-438 15" Panel PC (1024 x 768)

NO. DS200640240108 | EN  
2015 | V 01.00.08



## MT-438 – 15" (1024 x 768)

R. STAHL's brand new, innovative 4x8 Panel PC SERIES has been designed specifically for the oil and gas industry. Suitable for use in Zone 2 and Zone 22 hazardous areas, these units are ideal for a wide range of applications on both onshore and offshore drilling rigs, e.g. for mud logging, MWD / LWD, rig instrumentation, well stimulation, etc.

The powerful Intel Core i7 processor, the advanced sunlight-readable display with multi-touch technology, and a wide variety of functions make this system a highly innovative human-machine interface.

The 4x8 Panel PC SERIES features the latest trends in networking technology, e.g. dual Ethernet ports, or safe, 802.11a/b/g/n, IS WLAN module. The built-in Bluetooth and camera enable VoIP video conferencing. The Panel PC also comes with RFID reader interface for fast user authentication.

This new series is rugged and IP66-rated, provides outstanding resistance to shock and vibration, and is capable of operating at temperatures ranging from -40 °C to +65 °C [-40 °F to 149 °F].

### Explosion protection Certificate / Marking



#### ATEX directive 94/9/EC

BVS 14 ATEX E 134 X  
II 3 (1) G Ex nA nR [ia op is Ga] IIC T4 Gc  
II 3 (1) D Ex tc [ia op is Da] IIIC T115°C Dc

#### IECEX

BVS 14.0116X  
Ex nA nR [ia op is Ga] IIC T4 Gc  
Ex tc [ia op is Da] IIIC T115°C Dc

#### Additional certificates:

Russia (TR), Canada (CSA),  
Korea (KCC), Brazil (INMETRO)  
(pending)



### Hardware

- Brilliant 15" colour and sunlight-readable display with 1024 x 768 pixels (format 4:3)
- Capacitive multi-touch screen with hardened glass front
- Compact and light weight design < 22.6 Kg / 50 lbs.
- Robust, seawater-proof metal enclosure powder coated with IP66
- Extreme temperature range from -40 °C to +65 °C [-40 °F to 149 °F] (with integrated heating option)
- Powerful processor Intel Core i7® or AMD G-Series T56

### Firmware / Software

- Operating system
  - Windows Embedded Standard® 7
  - Windows® 7 Ultimate
  - Driver support for other operating systems (on request)

### Ambient temperatures

Operation -10 °C to +65 °C [ 14 °F to 149 °F]  
-40 °C to +65 °C [-40 °F to 149 °F] (option)  
Storage -20 °C to +70 °C [ -4 °F to 158 °F]

Front and back side IP66

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Technical data	
Design	VESA, Yoke or pipe mount, sun shade and mobile options
Display	38 cm (15") TFT color display 16.777.216 colors XGA 1024 x 768 Aspect ratio 4:3 Brightness 450 cd/m <sup>2</sup> (SR display 1200 cd/m <sup>2</sup> ) Contrast 700:1 Capacitive multi-touch as option behind hardened glass
Backlight	Long life LED technology Service life 70,000 h at +25 °C [77 °F]
Function keys at display	8 function keys Capacitive touch keys
External keyboard	Yes (optional), attached keyboard and pointing device (trackball or joystick) (Ex ia) or desktop keyboard 105 keys (Ex ia) and optical desktop mouse (Ex ia)
Processor / memory	AMD G-Series T56 1.6 GHz 2 cores 4 GB RAM, 60 GB SSD Intel® Core™ i7-3517UE 1.7 GHz 2 cores, 4 threads, 3rd generation Ivy Bridge, 17W TDP 4 GB RAM, 80 GB SSD
Operating system	Windows Embedded Compact 7, Windows 7 Ultimate
Languages	Multilanguage operating system: en, de, fr, es, it, br, ru, kr
Interfaces	<b>Standard interfaces</b> 2 x Ethernet 10/100/1000Base-TX (Ex nA) or FO 100Base-FX, 100 Mbit (Ex op is), SC connectors 1 x USB (Ex nA) 3 x USB (Ex ia) 1 x Serial interface RS-232 / RS-422 / RS-485 (Ex nA) 1 x Audio line out (Ex e) (only AMD processor) DVI out (Ex nA) Integrated front camera 5 Megapixel Reader / barcode reader interface (Ex i) <b>Optional interfaces</b> Bluetooth WIFI 2.4 GHz (Ex i) WIFI 5 GHz (Ex i)
Dimensions (W x H x D)	380 mm x 394 mm x 137 mm [1.25 ft x 1.29 ft x 0.45 ft]
Cut-out	No panel mount
Weight	< 22.6 Kg / 50 lbs.
Power supply	20...30 VDC 100...240 VAC (Um 250 VAC), 50 ... 60 Hz
Ambient temperatures	Operation: -10 °C to +65 °C [ 14 °F to 149 °F] -40 °C to +65 °C [-40 °F to 149 °F] (option) Storage: -20 °C to +70 °C [ -4 °F to 158 °F]
Heat dissipation	Via heat pipes and cooling fins
Relative humidity	>95 % at +65 °C [149 °F] according IEC 60068-2-30
Vibration resistance	According EN 60068-2-6 and DNV marine certification vibration class A
Material front	Seawater resistant and coated aluminium, hardened glass
Material back	Seawater resistant and coated aluminium
Type of protection	Full protected IP66

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## Type code field system Panel PC

Description	Code	MT-	4	38	-	3					0	0	0	0	-	B	3		0	0	0	0	0	0	0	0	0
<b>Device series</b>																											
Zone 2, 22	MT-																										
Panel PC	4																										
Display size 38 cm / 15" display, 1024 x 768 pixels	38																										
<b>Ethernet</b>																											
2 x copper Ethernet interface 10/100/1000Base-TX (Ex nA)	2TX																										
2 x optical fibre Ethernet interface 100Base-FX (Ex op is)	2FX																										
1 x copper Ethernet interface 10/100/1000Base-TX (Ex nA) (for WLAN devices)	1TX																										
<b>Processor type</b>																											
AMD G-T56N	2																										
Intel Core i7-3517 UE	3																										
RAM: 4 GB	3																										
<b>Display type</b>																											
TFT display	0																										
Sunlight-readable display	1																										
<b>Data memory</b>																											
16 GB C-Fast for Intel Core i7-3517 UE in combination with WES7	3																										
60 GB for AMD G-T56N in combination with WES7	5																										
80 GB for Intel Core i7-3517 UE in combination with WIN 7 Ultimate	6																										
<b>Touch screen</b>																											
None	0																										
Capacitive multi-touch	3																										
<b>Power supply</b>																											
24 VDC (Ex nA)	0																										
100 – 240 VAC, 50 – 60 Hz (Ex nA)	1																										
<b>Optional interface 1</b>																											
No WLAN, no Bluetooth, no RFID	0																										
WLAN 2.4 GHz, no Bluetooth, no RFID	1																										
WLAN 2.4 GHz and 5 GHz, no Bluetooth, no RFID	2																										
No WLAN, Bluetooth, no RFID	3																										
WLAN 2.4 GHz, Bluetooth, no RFID	4																										
WLAN 2.4 GHz and 5 GHz, Bluetooth, no RFID	5																										
<b>Optional interface 2</b>																											
None	0																										
CAN-Bus (CAN Open) (only for AMD G-T56N)	3																										
<b>Option box: none</b>																											
<b>Front / enclosure design: EXICOM VESA 200</b>	0																										
<b>Operating system</b>																											
None (T56 only)	0																										
Windows 7 Ultimate	3																										
Windows Embedded Standard 7 (WES 7)	4																										
Windows Embedded Standard 7 (WES 7) and WINCC flexible	6																										

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Description	Code	MT-	4	38	-	3					0	0	0	0	-	B	3					0	0	0	0	0	0	0	0
<b>Enclosure type</b>																													
Rugged panel design (RP)	B																												
<b>Material</b>																													
Seawater-proof aluminium (powder-coated)	3																												
<b>Mounting option</b>																													
VESA 200	0																												
VESA 200, handle and feet	4																												
<b>Outdoor design</b>																													
-10 °C	1																												
-40 °C	5																												
<b>Keyboard layout (see accessories)</b>	0																												
<b>Integrated pointing device (see accessories)</b>	0																												
<b>Separated pointing device (see accessories)</b>	0																												
<b>Separated reader device (see accessories)</b>	0																												
<b>Emergency stop button (see accessories)</b>	0																												
<b>Separate power supply: none</b>	0																												
<b>Further options 1: none</b>	0																												
<b>Further options 2: none</b>	0																												

## Accessories

### Media convertor / Single Port Fibre Switch

9721/13-11-14

1 port 10/100Base-TX RJ45 and 1 port 100Base-FX, fibre optic multi-mode 50 (62,5) / 125 µm (SC)

### Readers

RFIDI-RDR-2-MIF-CRYPT

Mifare card reader (Ex i), proximity, protocol supported CRYPT, for connection to reader interface

### Mifare cards

Mifare-1K-S50-ISO14443-S-10

Mifare-1K-S50-ISO14443-S-100

10 Mifare Proximity access cards 1K S50 - ISO 14443, Front Packaging: Vinyl glossy white

100 Mifare cards, as before